

LEN ACKLAND. Born 1944

TRANSCRIPT of OH 0991V A-B

This interview was recorded on January 5, 2000, for the Maria Rogers Oral History Program and the Rocky Flats Cold War Museum. The interviewer is Dorothy Ciarlo. The interview also is available in video format, filmed by Dorothy Ciarlo. The interview was transcribed by Dorothy Ciarlo and Anne Marie Pois.

NOTE: The interviewer's questions and comments appear in parentheses. Added material appears in brackets.

ABSTRACT: Len Ackland, a journalist and journalism professor at the University of Colorado, Boulder, talks about his career and more particularly, his involvement from the 1970s to 2000 in reporting about nuclear weapons in the United States. His writing covers scientific, technological, environmental, social, historical, and ethical issues and concerns relating to nuclear weapons and their production. He discusses in-depth the research and writing of his book, *Making a Real Killing: Rocky Flats and the Nuclear West* [2000] that provides insight into the history and controversies relating to this nuclear weapons plant in the Denver area.

[A].

00:00 (This is an oral history with Len Ackland. It's for the Carnegie Library. It's relating to Rocky Flats. Len, can you just say a few words about the work you've done relevant to Rocky Flats before we go into other things?)

OK. The most relevant thing that I've done is write this book, *Making a Real Killing: Rocky Flats and the Nuclear West*, which was published by the University of New Mexico Press just a couple of months ago. That was a book that I worked on over the course of about 9 years, so it's pretty amazing to see it in such a slim volume!

(And we're meeting now in Norlin Library where your office is, could you say a little bit about your position here?)

Yes. I'm an associate professor in the School of Journalism and Mass Communication here at the University of Colorado at Boulder. I also direct the Center for Environmental Journalism, which I am the founding director of. And that work probably had something to do with why it took me as long as it did to finish the Rocky Flats book. Although the other piece of that was that there were so many changes. When I started working on the book, there was a Soviet Union, there were plans to restart Rocky Flats after it was shut down in late '89, and all that changed, rather abruptly, with the disintegration of the Soviet Union. But I guess we'll get into that.

01:49 (Yes)

(Just to back up a little bit, we always start our oral histories with, when and where were you born?)

When and where was I born? I was born June 2, 1944 in Washington, DC. My father worked for the Post Office there, and my mother was a housemaker, and we—when I was four, my family moved to Roswell, New Mexico. That's where I spent my early childhood. Then in 1955 my family moved to Aurora, Colorado, so that's where I spent most of my formative years, I suppose.

(And you were how old, then?)

I was 11 when we moved to Aurora, so that's really where I grew up in junior high and high school. And then after graduating from Aurora High, that was in 1962, and just to give you a sense of how things have changed in the metropolitan area, at that time Aurora only had one high school, and that was Aurora, which is now Aurora Central. Now there are half a dozen or more high schools, it's a fast growing area. Then I attended the University of Colorado, right here, and majored in history, spent my junior year in Bonn, Germany, on an exchange program, which was a very enlightening experience for someone who had spent most of his conscious life in the west.

03:31 (And that was a part of your history major, then?)

Well, it was part, I took history and political science courses at the University of Bonn, and was able to transfer those credits back, so I didn't lose any time. I certainly learned a lot more than simply being in classes, and I do think that experience of being overseas is probably what—well, it is what got me very interested in international relations. So when I graduated in '66 from the university, I decided to continue my studies at Johns Hopkins School of Advanced International Studies, Washington, DC.

04:19 So I started there in the fall of 1966, and you'll recall that that was the time when the Vietnam War was going full tilt, and I—very quickly developed library disease. It just seemed rather silly to me to be sitting in a library, going to classes, talking about Vietnam, studying international relations, when the war was going on. And there were a couple of students who had been in an organization in Vietnam called the International Voluntary Services, and had come back to graduate school. And I got to know them, and saw their slides, and talked with them. And it didn't take me very long into the fall semester before I decided that I really wanted to go and see for myself what was happening in Vietnam, because we were getting so many different stories about what was occurring.

05:14 (You had a student deferment?)

Yes, I had a student deferment, at that point. And then I joined the International Voluntary Services, which is like the Peace Corps, and went over to Vietnam in March, 1967, and was—What can you do as a social science major? I was a history major, I had no great skills like agronomy or anything to help out, as some of the people in the organization did. So I went over as an English teacher, but began working with refugees and was stationed in Hue, which is in central Vietnam. It was the northern part of South Vietnam. Hue is often called the ancient imperial capitol of Vietnam.

And when I went over, I told myself, OK, I'm going to wait and really observe and try to come to some conclusion about what was happening in Vietnam, even though from the reading I had done at the University and then actually participated in a couple of teach-ins, or sit-ins, I guess that's what they were called here in Boulder about Vietnam, and there was just a lot of concern what was going on, what was U.S. foreign policy about, what were the goals, what were the consequences of that war to Vietnamese people as well as to Americans.

But it didn't take me very long after getting to Vietnam, that I really became concerned that the story that we were getting back here in the States about what was happening really wasn't an accurate picture of the war. And so that's when I started writing. I'd never written anything other than test papers and essays.

07:19 (So you hadn't been particularly interested in journalism before that?)

No, no, I had done writing, but not in any journalistic way, I had never worked for the high school paper or college paper. And the reason I started writing was that, you know, I felt a real sense that people needed to know more about what was happening and I didn't have a video camera or anything, so writing was the medium. So I started writing, first newsletters that went to a mailing group that the organization provided.

08:01 (The organization was independent of the government?)

Well, it was an A.I.D. contract, so it was a contract under the State Department, but it was an independent organization. Although a few months later, when a number of us in the organization signed a petition calling for an immediate end to the war, the State Department came down on the administration and those of us in the field were warned that our contract said that anything we wrote had to first be cleared through the Washington office, for our own safety, of course. But most of us didn't pay much attention to that, because we were people, and this organization was filled with people who had learned Vietnamese, were working with the Vietnamese people, either in refugee camps or some agricultural areas or teaching. So that we were—

(You spoke—you learned Vietnamese?)

I learned Vietnamese over there, and—toughest language I've ever had to learn, because of the tones and in fact, after about six months I thought it was hopeless, and suddenly something clicked and the people I was speaking to could suddenly understand me! Because I started getting the tones right! It's a very difficult language, monosyllabic, so that one word can have five or six different meanings depending on what tone you put on it. And being rather tone deaf, it's tough for somebody like me.

So I worked with that organization in Hue until late 1967, and I mentioned the petition earlier that we signed—I won't go into the gory details, but basically I wrote an article that the organization censored, and that was the last straw for me, and at the same time, I was getting some warnings from Vietnamese friends that something was about to happen, and they were concerned about my safety.

So I took a job in Saigon, I wasn't ready to leave Vietnam at that point, I felt like I had a lot more to learn, so I took a job with the Rand Corporation, which at the time I really didn't know much about Rand. They were doing a research study called "Vietcong Motivation and Morale," and interviewing deserters and prisoners of war at prison camps, and these were actual interviews, they weren't interrogations in any way. Intelligence people had already been through the prisoners. So I was kind of a supervisor of three or four Vietnamese, would go to various places, and it was a way to learn a lot about what was happening in Vietnam.

11:11 So I left Hue in December of '67, then a month later was the Tet offensive, and I was in Saigon when that happened, and my two house mates in Hue were both captured and spent five years in prison in the North. So it was fortunate that my friends had given me at least some vague notion that things were about to happen. So I spent six months working for Rand, and then I quit because they brought in a new fellow who intended to make it part of intelligence apparatus, and I said, no way, I'm not interested in that.

So that's when I started free-lancing, and went back to Hue and did research on what happened during the Tet offensive during the occupation of Hue, late January and February. Then at that point, a couple of months later, I traveled around the country as a journalist, I had free-lance—I had a press badge, so I could hitch-hike on flights, that's what all of us did, even when I was going—hitch-hiked on military flights or Air America, which was the CIA airline that flew everywhere. So I did that for awhile, and then I got my draft notice, when I was in Saigon, that [said,] "You have been reclassified 1A, report to your nearest recruiting station!"

12:45 So, at that point, I'd been in Vietnam almost two years, and I was pretty exhausted. I decided I would come back, but I had also decided that I wasn't going to go back to Vietnam as a soldier. How could I face Vietnamese, whom I'd worked with in a humanitarian way or as a journalist—suddenly be in uniform, that made no sense. And really, by that time I thought we were completely wrong, it was a wrong-minded policy in Vietnam.

But I was avoided the choice of prison or Canada by—and I think I would have picked prison rather than being a deserter—but I failed the physical because I was a carrier of amebic dysentery that I picked up in Vietnam. I thought that was a little bit of cosmic justice! So after that, I went and did a little speaking about Vietnam, and then went up to Minard, which is outside of Vail, and kind of aired out for a couple of months, working as an apprentice carpenter, then returned to graduate school in the spring of '69. I got there the day before President Nixon was inaugurated, and a friend's father was a reporter, and so he got us press passes, so I actually was present at the inauguration in '69. So that was a pretty interesting juxtaposition, to have been in Vietnam and come back.

So I finished graduate school in 1970 and also at that time started working for the Brookings Institute while I was still a student, and working as a research assistant for Leslie Gelb, who when he had been a civilian in the Pentagon, had headed up the Pentagon Papers study. So that was a very interesting experience and way to learn more, because when I came back from Vietnam I really wanted to understand, How had we gotten into this? And I guess my background as a history major, and my long interest in history made me want to dig into that. But of course later, it took me into the same sort of thing with Rocky Flats.

But—so I worked at Brookings on this study, and then after I graduated I continued working there, then got a job with a shoestring news service called Dispatch News Service which had become rather famous or infamous, in some people's minds, because it was the news service that actually sold the My Lai story that Seymour Hersh had written, when nobody else would—everybody was afraid of that story until Dispatch got hold of it. Dispatch actually had been founded by some friends of mine in Vietnam to try to tell a different kind of story about the war, not simply the military story but the story about the land and the people.

So after Dispatch, I worked for awhile on the Pentagon Papers trial because after Dan Ellsberg and Tony Rousseau were indicted for having copied the Pentagon Papers and giving them to the public—I mean, it was our history, but it was stamped "Top Secret," therefore none of us could have access to it until Ellsberg and Rousseau came along. I knew Tony from Vietnam, so I was asked to do some research for the defense teams, and I did that, actually read through the entire Pentagon Papers and the idea was we were trying to identify places where the government would claim that these were secrets that would endanger the nation. And that this information hadn't been published anywhere before, so, because I had been working at Brookings and had a pretty good background of historical material, I knew where a lot of information had been published, so that kind of helped. I ended up doing a digest of the Pentagon Papers, small digest that the American Friends Service Committee published in '71 or '72.

17:20 (So that more people could get an understanding of what was in it?)

Um-hm, because there were 6000 pages of documentation, so it was a little bit inaccessible.

So, I worked there, and then in 1972, I got married in California, took time off from the trial, and actually there was pre-trial stuff, there was a—the trial never happened, it was a mistrial, and so my wife and I came back to Denver in 1972, and I wanted to—By that time, I had done some reporting, I actually went back to Vietnam when I was with Dispatch for a couple of months as a reporter, and really liked journalism. But I still didn't have a whole lot of clips, and so it was hard to get a job. So I began working—well, worked as a janitor at Montgomery Wards down near Lakeside, in order to make money—so I worked the early hours of the morning as a janitor, and then spent the rest of the day reporting and writing for a shoestring city magazine that came and went, it was a little before its time, in 1972. But did a number of stories, and then actually got a grant from the Fund for Investigative Journalism at that time, it was \$1000, which back in 1972 seemed like a whole lot of money, and I certainly was able to quit my job as a janitor! So I did, and of course \$1000 even then didn't go very far. So I quickly needed other work, and worked for a couple of months with Colorado Project Common Cause, and then was hired, my first paid job as a journalist, I was hired as a reporter at *Cervi's Journal*, Gene Cervi.

(That was a well-known Denver journal?)

Yeah, it was a weekly, it reported on business and labor, and Gene Cervi was kind of an iconoclast. Somebody once described *Cervi's Journal* as just like all the other business papers around the country, it included lists of mortgages and loans and everything, but all the articles were anti-business! [laughs] There was definitely an edge to Cervi and our job was to look beneath the surface and try to find out what was actually going on, in the business community. So that was fun. I worked at Cervi's for two and a half years, and then was hired as basically

doing investigative kinds of stories, I was hired by the *Des Moines Register*, I was an investigative business and labor reporter. So I went to Des Moines in 1975.

20:35 (You sought that out, did you want to go to the Midwest, or was it—?)

Well, I didn't exactly want to go to the Midwest, I really wanted to stay in Denver, I loved the West, this is home. But I also wanted to work at a larger paper, because at the smaller papers, weeklies, they're very good for giving you a broad perspective and lots of experience covering different issues, but because they are so small, you don't get much editing, and every writer needs editing, we can always improve. And I started feeling like, well, it was time to move on, to try to see where this new-found career in journalism would lead me. And I actually was being interviewed, I'd done some stories about Pastor Blair at Calgary Temple in Denver, he was involved with some securities fraud. Well, I exposed that over a series of months, and it was a very interesting experience working on that story, because Blair and his side-kicks had gone around and convinced a lot of senior citizens to essentially sign over—they were running a Ponzi scheme, which is you get early investors and you then pay off the early investors with more investors. Eventually, it's going to fail, but what happened was, they were trying to exert power over some of the senior citizens to sign over their wills, basically, to the church. And so there was a lot of mixing religion and business, and there were a number of, I remember—About the only time I've ever been asked for—to show my press card was interviewing a woman who just felt terrible about having to talk about what had happened to her money, and I felt during the whole interview, which was at her home, her grown daughter was there, and I just had this feeling that she thought that at any moment a lightning bolt was going to come and wipe her out because she was talking against Pastor Blair.

Anyway, there was a fellow from Ohio State who was doing a book about investigative reporting, and so he was interviewing me, and I of course was interviewing him, and asked him where some papers were that were doing really interesting work in investigative business reporting, and he said, well, there are two that come to mind, the *Des Moines Register* and the *Milwaukee Journal*. And the *Des Moines Register* has this aggressive business editor named Jim O'Shea, and so since I had O'Shea's name, I wrote him a letter and a week later I was out there for an interview and three weeks later we moved to Des Moines. So I didn't have any real intention to go to the Midwest per se, but I'm really glad that I did, it was a wonderful experience, all of my stereotypes about farming and farmers and the Midwest really disappeared after working at the Register and understanding agri-business a lot more, and also that's where I started covering the meat packing industry and the labor issues, and so I did that. And it was a wonderful time in my career, the few years I spent at the Register.

24:30 And then in '78 I'd won a journalism award, and if I was going to make a move, that was the time to do it. So I took a job at the *Chicago Tribune*, also doing basically in-depth investigative business and labor stories. So I went there in Thanksgiving of '78. And that was the time when I—at the Tribune, when I first really got involved with computers, and actually I just became fascinated, I was sent—actually I had an assignment to cover a speech by one of the former astronauts down at McCormick Place, which is the big convention center in Chicago. And went down and covered the talk. I walked around the convention hall, and was just amazed, here were thousands of machines and thousands of people, the machines were doing pretty amazing things, and people were talking language that I didn't understand, and I—Whoa! What is

going on here? Sort of like future shock. So another reporter and I talked the editors into giving us a couple of months, and we went around the country and talked to computer scientists, I went to GM labs up in Detroit, and went in and saw the robots that a couple of years later started replacing workers on the assembly lines. And it was a very dramatic experience for me.

26:12 So—And at the same time, computers—that's when I started getting more aware of the nuclear arms race and—you remember, this is the late '70s, the '80 campaign was going on, and you had Al Hague talking about a limited nuclear war, George Bush the same thing, and there was this whole saber-rattling that was going on. And at that time, there were a number of activists, particularly Physicians for Social Responsibility, Helen Caldicott, doing talks about the consequences of nuclear war, thinking about that. And I had little children at that time, and really started thinking a lot about the arms race, and that's where I first started doing some stories.

Actually the first story I did specifically on nuclear issues was—there was a nuclear war false alarm down at NORAD in Colorado Springs, in the fall of '69, I'm sorry, fall of '79, that was caused by a faulty computer chip. And yet that chip had led to an alert that continued for 6 minutes. Another minute or two and the President would have been informed. We're talking about very narrow margins here of safety. And so I did a story on it, and it just so happened that—I'm very document-oriented, as you'll see when we start talking about the Rocky Flats work—and I had gathered a lot of stuff when I was doing this series on computers. And one of the reports on my desk was about the Honeywell computer system that was in place at Norad which had been critiqued in a government study as being out-moded. So I did a story about the computer system. And that kind of got me started really writing about the nuclear weapons and arms race, at the same time I was more concerned about where we were heading.

So in—I continued and actually developed a beat at the Tribune, a technology beat, there had been science writers, but the science writers usually wrote more about medicine and kind of developments in science, rather than about applications of science. That was what I was interested in, applications of computers in the workplace and in the military.

28:55 Then in 1982 I had an opportunity to really dig into the history of the arms race because December 2, 1982, was the fortieth anniversary of the first self-sustaining chain reaction at the University of Chicago, at Stagg Field, which I'm sure you've seen—the Henry Moore sculpture, you know, that was the site, and actually Regenstein Library is on the site of the old Stagg Field football stadium, and the squash court where the first chain reaction took place was under the stands of Stagg Field. So I convinced the editor of the Tribune magazine that this was a great story, and he cleared the way. So I basically had a couple of months to interview scientists who participated in Stagg Field, and really to start understanding more about the physics, which took me back to something—Actually when I came to the University in '62, I had wanted to be a physics major, and actually had taken a course from Gamov, George Gamov, which was a fascinating course. I decided the lab wasn't where I wanted to spend a lot of time, so I went into history. But you know, it was kind of recombining some of these interests. So I did a magazine piece for the *Chicago Tribune* on the fortieth anniversary, and that got me more aware of these issues.

30:45 And then a year and a half later the *Bulletin of the Atomic Scientists*, which was located in Chicago—it had been founded by scientists who worked on the Manhattan Project and really wanted to do two things—one, have a publication that would serve as communication among concerned scientists about nuclear weapons issues, but the other was, they wanted a magazine that would de-mystify the technology and alert the public to the dangers of nuclear war. So this magazine started in 1945, not many people have heard the name of the magazine, but most people at least up until a few years ago, during the Cold War for sure, knew the symbol, which was the Doomsday Clock, and this was a symbolic clock and the hand would move, the minute hand would be moved toward midnight or away from midnight depending on the state of US-Soviet relations and an assessment of how dangerous the nuclear dilemma had become, and how close we were to nuclear war. So that—it was a very prestigious magazine, well-respected.

So they were looking for an editor, and I applied, and much to my pleasure got it. So I became editor in August, September, 1984. I like to think of it as just a few months before Mikhail Gorbachev took over the Soviet Union, and caused a lot of changes there. So I was editor of the *Bulletin* from 1984 until 1991, and then I came here, and it was a wonderful enlightening experience. The magazine was a monthly at that time. It later became bi-monthly. But it gave me an opportunity to really understand, really dig into a subject area, although it's a huge subject area. The whole nuclear arms race at that time, you remember, March of '83, President Reagan had made his Star Wars speech, and so we did a lot of articles about Star Wars, the absurdity of Star Wars, which was proven to be true a few years ago but now suddenly it's re-emerged as a kind of a mini-Star Wars, is now on the table. So it's one of the real problems, I think, with the nuclear weapons age. We haven't learned the lessons from the past.

But I went to the Soviet Union twice, once was a seminar in '86, another was with a group of journalists in '88, so that was a real experience, to see what is basically—It reminded me of developing countries that I'd been in, except that it's a nuclear armed developing country. But I can remember going into a hardware store in Moscow and seeing refrigerators and stoves that looked like something that you'd see out of the 1930's or '40's in the history books. That was very shocking, to see what happened—

(The disparity between—)

Oh, yeah, the civilian goods and yet the military might. That's one of the things that keeps me going today, again, realizing the Cold War is over and a lot has changed, but the nuclear weapons age is far from over. And I think that's something that we need to remember, that really is something—one of the reasons I wrote the book.

35:02 But in 1989, you'll recall, the Berlin Wall fell in November. Even before that, there were a lot of moves. Gorbachov really is the person who took the major risks, risks of changing the relationship between the US and the Soviet Union, and he had a lot of pressures, it wasn't simply that he was a great hero and understood everything. The economic pressures that I saw in the hardware store were really being felt throughout Russia, and the country simply couldn't sustain that kind of expenditure on weaponry, it just made no sense at all. So Gorbachov made some real moves with *perestroika*, and *glasnost* and trying to change the dynamics inside that country. Reagan—President Reagan—responded, and to his credit, also didn't particularly care for nuclear weapons, and he wasn't—And that's one of the reasons he fell for the Star Wars gimmick, this

was going to be a way that the weapons labs were going to stay in business and they were just going to develop a defensive system. The problem was it would never work. Physicists who looked at it, the authoritative physicists and independent physicists, said no way this could ever work, technically. But nonetheless, there were some moves, we needed a nuclear forces treaty, the INF was signed, and so there was real movements toward an end of the Cold War, and I think that was sealed by the fall of the Berlin Wall. Then the Russians didn't send in troops, and that was a very extraordinary moment. I never anticipated a world without a Cold War.

Many of us who grew up during that period had this feeling—as a psychologist, you, I'm sure, were aware of that whole question of "psychic numbing," what was going on, and I think we're still—There are effects in society that we haven't really probed about, what's going on here, that's probably a different subject, we can talk about it sometime! But at that point, I thought, OK, the Cold War's coming to an end, I've lived in the Midwest now for 16 years, I have three children, my wife and I are both Westerners, so we came back every vacation and summers, we'd come back and go backpacking, and so I really raised the kids—we raised our kids to think of themselves as Westerners, because that was certainly our roots.

38:15 So it was time to think of a way to get back to the West. And at the same time, for me, I wanted to try to bring some closure to all the work that I had done on the nuclear weapons issues. So Rocky Flats was an obvious way to do that, to look at Rocky Flats as a case study of Cold War America and the aftermath. What had happened—And I had questions in my mind, from the days when I grew up here, my family used to take drives up Coal Creek Canyon, you could see this facility up there, just a government facility, my parents didn't exactly know what was going on there. In fact, they didn't know at all what was going on there, they knew it was government operation.

And so Rocky Flats seemed like a good place to put some energy and try to understand how it was that a nuclear weapons plant could have sat on the edge of a major metropolitan area. And it was a key plant. Rocky Flats made, from 1952 to 1989, when the plant was temporarily shut down, Rocky Flats made nuclear bombs that were used as detonators for the much larger hydrogen bombs. When you think about what happened at Rocky Flats, and the plutonium bombs that were made, Rocky Flats made the Nagasaki bombs, basically. The Nagasaki bomb was the plutonium bomb that, when it was detonated over Nagasaki, Japan, on August 9, 1945, killed 70,000 people, one bomb killed 70,000 people. So the enormity of what was going on—and the bombs at Rocky Flats were—yes, they were detonators, and one of the great euphemisms came up, that Rocky Flats was making nuclear triggers. You get this idea of, “Oh, it's just a trigger factory.” Well, the trigger is that it's a nuclear bomb that triggers a hydrogen bomb, which is on the scale of a 1000 times more explosive than a fission bomb. So, you know, it's one of the things—

But what I wanted to look at, and really the question in my mind was, how is it that human beings, as clever as we are, as smart as we are, would create huge arsenals of devices capable of destroying our own species and most other species, and then threaten to use them? How did people think about that, in the community, the workers, and what was actually done there, and what were the costs to the public health, to the environment, what risks were really taken. And that's what I wanted to explore with Rocky Flats, and to try to understand what happened.

41:46 (That was what led you to being interested enough to?)

Well, yeah, and the combination—like I say, wanting to bring some closure to my work on the nuclear weapons age. So I wrote a proposal to do a study of—and the proposal went to the John D. and Catherine T. MacArthur Foundation—they have a research and writing grant program, not like the genius grant, they're the ones that knock on your door and give you lots of money. This is where you actually have to write a proposal and they give you a little bit of money. But it was enough. So that's what really started my—or enabled me to start the research on Rocky Flats and be paid something for it. So I started working on that—I got the grant in 1990 and then shortly after that was hired in Spring of '91 to be on the faculty here at the School of Journalism and Mass Communication. So it was very fortuitous, because then of course, coming to the University, especially a—what's called a Research One University, where research is a key part of what we do, our time, if you think of how we're supposed to spend our time as faculty members, it's 40% teaching, 40% research, 20% service. So my 40% research really was spent doing—40%, who knows, maybe more than that—was spent doing research on the book and trying to understand what Rocky Flats was all about. So that's—it's been a very interesting project.

43:51 (Sounds like in developing the project, you had your own cast of why you are interested, but you've written a book which is very readable for most anyone, especially people of course in this area, but I'm wondering—I presume that you did that deliberately.)

Oh, yes, absolutely.

(Could you talk a little about that?)

Sure. My goal in writing the book was to—well, my goal in researching and writing, first the research, was to really understand what happened at Rocky Flats, and then in writing it, to tell the story in an interesting way. This is a story about people, about place, about politics and technology, but people like to read about people, that's kind of what makes us tick, and that's what happens with newspapers and magazines, who are the people involved here? And so I really wanted to write a book that was accessible to lay people, that wouldn't be technical, and yet was also based on a deep understanding of the technology, so that the experts who read the book would also say, “Ah, OK, this is an accurate book.” So that was the real challenge, you know, in doing this. There were several challenges along the way, but the main one was to figure out a narrative that would carry readers through the book and the story of Rocky Flats and at the same time give a thorough explanation of what happened out there. So the story of Rocky Flats really takes place in kind of three different arenas. One is, what happened inside the security fences at Rocky Flats, and what were the workers doing, what were they exposed to, what were the dangers, what were the products, how did all that fit together? So that's the inside story.

46:16 Then you had the story which was outside the fences. How did the neighbors react, the ranches, the wider community, Denver? How about journalists, what did journalists know about Rocky Flats, and what was reported about it, what wasn't reported about it? So you had this whole local question.

And then, the third arena is really the context, and maybe there were four, really. The third is the national arena, national security and nuclear weapons and why nuclear weapons were being made, and this whole notion that national security is something that is so important to us as a nation that we citizens aren't allowed to know anything about it. You know, it's over here, it's a taboo area, national security, you can't know about it because there are secrets there that if you know about it, then the bad guys will know about it. Which I think is a question that we'll come back to in awhile because it's one that I think we have to deal with as a democratic society.

So then the fourth arena is really the international arena, the US-Soviet competition, and I didn't really get much into that because the dynamic of the arms race, that's been covered, that's been written about a lot, what happened, and once of course the arms race began, the two sides fed each other. But ultimately it still comes down to that question of, how did intelligent human beings decide to make these weapons of mass destruction? And we're still stuck with them.

So—when I first came out here, I had obviously some background research in the *Bulletin*, we'd run a couple of articles about Rocky Flats, I knew a lot about the general context of nuclear weapons production in this country, at the *Bulletin of Atomic Scientists* had done a number of series of articles about weapons production, we'd done articles about the Hanford plant, Savannah River, you know, all the other elements of the complex, and had done, like I said, a couple of articles about Rocky Flats. But nothing really in depth. And so coming out, the first challenge—and I got some advice from a couple of friends, but one really stuck out in particular, about writing a book. This was Jim O'Shea, who I mentioned, back from the *Des Moines Register*, who was now one of the top editors of the *Chicago Tribune*. O'Shea's written a couple of books, and so, his advice to me was, in order to try to organize the material, he said, do a chronology of events, of everything that happened, and then you find particular events, then research the hell out of them.

49:33 So I approached my research as that—developing a chronology, so on my computer, I did it by years, and sometimes by decades—I started out by decades, sometimes more. And the research that I did was, like any story that journalists do, you're dealing with documents, and you're dealing with people. And I'm a very document-oriented person, because I don't trust people's memories very well. And we all tend to—we forget what we—well, we're forgetful, and also people—I remember Dean Acheson's autobiography, where he described how he didn't remember everything, this is the former Secretary of State, he said, "I don't remember everything that happened, but I never remember anything to my disadvantage." So—you have to be careful about people's memories. So when memories are then backed by documents, that's when I'm happiest. So in doing the research, there was the secondary research, kinds of things -- newspaper articles, magazine articles, books—but the main information that I'm interested in is primary sources. Actual reports, memos, studies from the hearings records, that sort of thing.

51:11 (Did you have any problems getting access to important—?)

Oh, yes, oh, yes. In fact, the secrecy of the documents was one of the great challenges, because in—Well, one of the early questions I had was, why is Rocky Flats where it is? Why was it placed 16 miles from downtown Denver? Who in their right mind would do that? So I looked back and discovered that there were two Colorado senators, one a Democrat, the other a Republican, who were in Congress when the Rocky Flats decision was announced. And I

discovered that these two Senators were on this little-known but extremely powerful joint committee of Congress that was called the Joint Committee on Atomic Energy. And interestingly enough, the Joint Committee on Atomic Energy, which was set up by the Atomic Energy Act of 1946, had as its members nine Representatives and nine Senators. Of the nine senators, two were from Colorado, which made you wonder, well, wait a minute, and this committee was, in the words of one historian, was Congress in terms of nuclear weapons issues. So—hmm, there's an interesting piece of information.

So, of course, I wanted to learn more about the Senators and their interests, and it turned out that they both had had their records destroyed from the early years. So I couldn't go back and look at their own memos and reports and all. So one of the—And at the same time, I knew through other research that Colorado had uranium deposits in southwestern Colorado, the Colorado plateau, and uranium is the raw material for nuclear weapons. So, it stood to reason that they would be interested there. And then in doing a little further research into the Atomic Energy Act, I realized they both had played a major role in drafting the Atomic Energy Act, particularly the provisions about uranium mining. So, OK, that's sort of coming together. But I really wanted to get records about the hearings of the Joint Committee on Atomic Energy. Now, you'd think, well, why didn't you file a Freedom of Information Act request and get that? That's fine, except that Congress exempted itself from the Freedom of Information Act.

So I went to the National Archives in DC. and ordered—they have legislative archives, and so there I could make requests for mandatory review of Congressional records, which then the records, it was explained to me, will be sent to the Department of Energy for their declassification officers to go through to see if there was any classified information still in there that would need to be censored, and so on. So it's a very tedious kind of process. But the big problem was, when I first started doing research in the archives, was that the index to the classified records was classified! So I wasn't even able to know what I couldn't see! And therefore, when I first started making requests for mandatory review, I did it on the basis of dates, where I knew from the chronology that I had developed through newspaper research and other secondary documents, I knew that something had happened, so I went through the index of declassified documents. I'm trying to figure out, well, what could be there, so I would then request those documents, and then I would look through that and try to figure, OK, what else. But it was just impossible. Finally, thanks to some changes at the end of the Bush Administration, but mostly under the Clinton Administration, there were—there was more openness. Hazel O'Leary as Secretary of Energy had her openness initiative, and even before that, finally the classified index of documents was declassified. So for the first time I could then ask for mandatory review of documents that had Rocky Flats in the title.

56:10 (You would not have been able to do that just a few years earlier?)

No, because when I said, OK, I want everything on Rocky Flats, then they said it was too much, you have to be more specific. How can I be more specific? Well, sorry! It was a Catch-22. So that—Yeah, that was one of the problems. And there's still—I've requested documents that I still have not received, from the Government based on classification. And now, in the current atmosphere, with the Republican Congress, secrecy—the walls of secrecy are being built up again. And so it's going to be even harder to get information.

(So you may have been doing this at just the right time in terms of being able to get—?)

Yes, right. I couldn't have done it—in terms of the documents, as well as in terms of the people I was interviewing, and particularly workers, managers.

(I was going to ask you, what was the general reaction to you—did you receive cooperation or was it spotty?)

Uh, from—?

57:27 (—From the people having to do with Rocky Flats?)

Well, it varied. What I tried to do, and this goes back to your question about how I wrote it, trying to make it for a general audience. When I came to Boulder, the first thing I did was start going to all the meetings. There were a lot of public meetings. In fact, the day after I arrived in town, there was a meeting down at one of the churches on Spruce Street in Boulder, and this was a community meeting where the plant manager was there, workers were there, and citizens. Because at that point, this was June of '91, everyone felt that the Department of Energy was going to re-open Rocky Flats. And I'll never forget walking up to the church, and there was a worker who came up—I didn't know it was a worker, there was this fellow who came up and unfurled this big banner, something to the effect that Rocky Flats protects our freedom. And I thought—having just come from Chicago, Bulletin of the Atomic Scientists, the Cold War was over, my initial reaction was, oh, satire, he's got to be sort of poking fun at this. But then I realized, when I saw a worker—a number of people with shirts, T-shirts on with that same slogan, that in fact they were workers at the plant and the Cold War was alive and well at Rocky Flats. And this was '91.

So I—in going to these various meetings, I wanted to identify people who were involved with Rocky Flats, to understand, all right, what are the issues here, who are some of the people—And about a year into the research, I discovered that Charlie McKay—well, I heard that—I knew about the Church family, because there was a big lawsuit from Marcus Church. But Marcus Church had died in 1979, and I thought, that's too bad, because Church Ranch Boulevard and 104th—that would be ideal. I'm sorry I don't have him. But I didn't know that he had a nephew here at the time I first started doing research. Turned out his nephew is named Charlie McKay, because it was his sister's son. And so Charlie McKay is still a developer out there, and still ranches next to the plant. So once I identified him as part of the Church family, I thought, this is somebody I have to talk to. So how would I make sure that he doesn't say no? And that's a dilemma that journalists have all the time. How do you do it?

(This tape is about to run out, so I think we need to stop now and let me change the tape.)

OK.

60:43 [End of Tape A]

[B].

00:00 (This is a continuation of the oral history with Len Ackland. And Len, you were just talking about how you made contact with Charlie McKay.)

Right.

(You might just kind of identify he's a part of the family—?)

Yes, he's the nephew of Marcus Church, and the Church family was a family that homesteaded—east of Rocky Flats in the 1860's, and then had acquired much of Rocky Flats, the mesa itself. Then in 1951, when the government decided that they wanted to put Rocky Flats there, the Church family in the initial "taking" under the 5th Amendment, right of eminent domain, the government can say, I want your land, they just have to pay a fair price, the only thing you can quibble over is the price. So the Church family lost 1200 acres at that point, and Marcus Church was the head of the family at that point. In 1975, Church sued the government and the contractors at Rocky Flats, and claimed that he had been bamboozled, and that the plant had caused all kinds of damage to his adjacent property. So Church died in 1979, and his nephew, Charlie McKay began running the Church ranch operation after that. So—

(And you were saying that you were wondering, how can I make sure—?)

Right. Once I realized that McKay was such a central figure, I didn't want to call him up on the phone and say, "Hi, I'm Len Ackland, professor, writing a book about Rocky Flats," and have him say, "Well, I don't have any time to talk to you," or "I don't like journalists," or whatever. I didn't want—I wanted to try to minimize the chance that he would say no. So I wrote him a letter, explaining who I was and what I was doing, and saying that I would give him a call, which I did. And he didn't sound terribly enthusiastic about talking with me. He's a business man, he's a busy guy, if you look at all the developments going on off 104th, you can see he's been very active! But he said, I can give you an hour, and that was some weeks away. Great! So I went into the interview and—my main goal in interviewing anyone is to develop a certain comfort level and get them to talk with me. So—we hit it off pretty well. He's—in his earlier life he was in construction, and is still quite involved with that—ranchers do a bit of everything, and developers for sure. And my son is a construction engineer, so we kind of had some areas of common interests.

So it turned out that over the years, I interviewed Charlie a number of times, and he also gave me access to the family's archives, records, and Marcus Church was one of these people who made a copy of every letter he ever wrote. So the files were just wonderfully rich. And I decided to use the Church family as the narrative thread throughout the book so that—the prologue starts with Charlie McKay and the epilogue ends with Charlie McKay. So it carries through the years and then—Because the story of the family is in some ways the story of the West, the development out here. What happened. They were a part of that, and played some interesting roles, as Charlie's grandfather was in the State Legislature. So there were some very nice ways to make connections between the Rocky Flats story and the Church family story.

So I, what I did in constructing the story was start there, I then went through fairly quickly the history of the early Church's, Henry and Sarah Church who came out and homesteaded, and then

John and Frank Church, then in the late '40's when Marcus Church really was running the operations, and he got a lease from the Lowry Bombing Range to graze cattle out there. So he had some interaction with the government that was quite interesting, and then here came the plant and at that time, the late '40s, mid- to late '40s, we have the senators that I mentioned earlier, and it turned out that of course the—because of the clout these senators had, Rocky Flats was a shoe-in—or the Denver area was a shoe-in for this facility, because the Atomic Energy Commission knew that the Joint Committee on Atomic Energy was responsible for their budgets, so they had every interest in remaining friendly to the Colorado senators, so it was theirs to have.

06:00 (And that's something that's certainly not known by very many people before you wrote this book?)

Right. No, it was always a great mystery, and partly a mystery because the senators, at the time Rocky Flats was announced, didn't take credit for it. And that was a mystery to me, too, and it took me awhile to figure that out, and it took a lot of research and digging around, particularly again because the records of the two senators, Edmund Johnson and Eugene Milliken had been destroyed, at their request, so what I—and I couldn't figure out, because these guys were responsible for a lot of pork, military pork in particular. Colorado is pretty weighted down with military installations, and Johnson and Milliken had both been involved in the Rocky Mountain Arsenal, east of Denver; in NORAD, North American Air Defense Command down in Colorado Springs; the National Bureau of Standards, which came in just about the time of Rocky Flats, in Boulder; the Air Force Academy later. And these two senators, as senators do, always took credit for it.

So why—I was really puzzled as to why they hadn't—if they were really instrumental in bringing Rocky Flats here, why hadn't they taken credit for it? And—um—the mystery actually was solved—The first real clue to that mystery came when I was looking through—even though Eugene Milliken had his records destroyed, he had scrapbooks of clippings, and so I was looking through his old yellowed clipping scrapbooks down in the Western Archives, in Norlin Library. And discovered some clippings from August, 1950, and you remember in January, 1950, President Truman gave the go-ahead for the hydrogen bomb project, there was a lot of controversy about whether the United States should develop an H-bomb, and finally he gave the go-ahead. And in that summer, Congress allocated hundreds of millions of dollars for construction of a nuclear weapons reactor that would be located somewhere in the United States. Well, communities all over the country decided, hey, we can have this facility, and it's going to mean jobs and contracts, and it's going to be a real bonanza. So there were communities from north to southeast to west that contacted their senators and representatives and said, you know, push for us, we want it.

Included among those communities was Alamosa, in southern Colorado, and the Alamosa Chamber of Commerce decided that Alamosa was a perfect place, and that the nuclear weapons reactor should be put in Sand Dunes National Monument, and their argument was, it's already federal land. It's a national monument, it's got water, so, hey, this would be ideal. And at that point Johnson and Milliken were quite concerned about the safety of nuclear reactors, and the hearings of the Joint Committee on Atomic Energy they raised these questions, but those were, again, still classified hearings that I had to go after, and did after I found this clipping. But the argument that Johnson and Milliken used about why Alamosa and why the Sand Dunes was not a

good location was that it would make Colorado a number one target for the Russians, for Russian nuclear weapons. So that wouldn't be a good idea, right? But it appears that their main reason was that they thought that nuclear reactors were unsafe. So they made, actually a very sensible logical decision, but they couldn't speak out as much as they wanted because of the secrecy at the time.

10:20 So then, during the fall of 1950, is when the Atomic Energy Commission decided that it needed a facility, and they called it Project Apple, which would increase the scale of production of nuclear weapons, and mainly again, the fission bombs. And Project Apple would essentially take over for Los Alamos, it was at that time making the bombs but it would do it on a much larger scale. And this was not public. No one announced, OK, we've got tens of millions of dollars to spend on a new facility, so there was no public jockeying for this particular facility. And then—and the book goes into much more detail. I found out that Johnson hired someone to actually promote business, before Rocky Flats was going on there was an FBI agent who was recruited by Dow Chemical early on in 1951 in January, and was told that this facility would be located in Denver. So it was clear that this was the spot.

But the senators, in March, when the AEC announced Rocky Flats, the senators acted as if they were surprised, they didn't know anything about it. So why was that? Well, now knowing about Alamosa, it suddenly all made sense because if they had said, OK, we brought Rocky Flats, which also should make Colorado a number one target for the Russians, then how could they have opposed this facility in southern Colorado? It would have alienated their constituents in southern Colorado, so by being circumspect and quiet about their accomplishment, they saved themselves some political grief. That's my conclusion about why they didn't take credit for it.

And the other reasons, of course, why is Rocky Flats where it is? AEC had experiences with company towns, Hanford and Oak Ridge, and had run into lots of problems, so they wanted a facility that would have some—be placed in a location that had amenities for workers. But at the same time they said, well, there are some dangers with this, so we want an isolated facility. So you had a document—one of the siting documents, which is just amazing, one paragraph describes Rocky Flats as this isolated mesa, the next paragraph says, this location offers plenty of opportunity for worker housing and entertainment, recreation. How can you have it both ways, it can't be isolated and have housing? But they convinced themselves that this was the place to do it. Then there were some mistakes about the wind, they read the wind—the documents showing that the wind currents—they read them from Stapleton Airport instead of from Rocky Flats, and if you'd read it from Rocky Flats you would have seen that the winds blow right over Denver, but from Stapleton it looked like the winds were coming from the southwest and would blow out into the plains. So they used those and had a complete misunderstanding of what would happen. So that seems to have been a mistake. But—it's hard to tell.

There are so many stories, other stories, and this is not—I hope it won't be the last book written on Rocky Flats, but it's the first non-fiction book that's been written about Rocky Flats, and what I really tried to do was provide a context and understanding for the books that come. There are lots of stories, one of the great challenges in writing a book, writing any article but particularly a book, is, you try to figure out what 95 percent of your research don't you use! And try to sort it out and go through and make it readable for people, and frankly, my wife was my chief editor on this book, and she—

(She's not in the same field?)

She's not in the same field, no, she's a—the Boulder Valley Education Coordinator for Headstart. So she's been a Headstart teacher, so she—we always joke, she gets young people when they're really young, and I have them in college, so I can blame her for the problems that I run into!

But for her, the story had to involve people, it had to be interesting, so when I was tempted to get too technical, she would always bring me back. And what I did was, in the narrative of the book, I try to make it very clear, but the book is also footnoted, there are more than 530 footnotes, or endnotes, so that people who want to know more information about a particular topic can go back there and find out some fairly technical information. So that's how I tried to do it, to make the text readable but not bog anyone down with—

16:25 (And my understanding is with the footnotes, people really could go back to the primary sources, all of which are available.)

Absolutely. I mean, I am a firm believer in footnotes, and I really hate these books that claim to be non-fiction, and yet give no sources, no attribution for statements that are made there. Because we all know from looking at documents, you can interpret documents in different ways. So I want to know where the information comes from, and I feel that I owe it to readers of the book to let them know, what are the sources for this information? So if they're curious about it, they can go back and look at it. They may see something that I overlooked, or they may be doing research, you know, on pieces of the story and that document may lead them to other documents. I really think that it's important as we try to re-construct history to do it as accurately as possible, and not get into this "trust me" mode that so many authors try to pull off. So I—yeah, I think it's really important to have good documentation.

17:50 (It seems particularly important in the story of Rocky Flats, too, in that so much about Rocky Flats was secret—)

Yes.

(—and probably—Did you have reactions to that, as you proceeded? Did you find people not wanting to be cooperative because of this habit of secrecy?)

Oh, sure, sure. And also just concerned about it. When I—one of the ways I approached the research early on, I knew that I had to understand radiation and the consequences of it, because that's very poorly understood, I think, by most journalists. So you have things that are written that are all over the board. Some are quite accurate, and others are just—out there. So I needed to do that. And also I needed to do some articles—magazine articles, primarily, that dealt with various issues.

So, for example, early on in my research I did an article for the *Bulletin of the Atomic Scientists* about insurance of workers. Because, you know, what happened was after the plant was—stopped producing—or processing plutonium and all, and was declared in January 1992, its mission changed from nuclear weapons to cleanup. Well, there were a lot of workers who were

going to be laid off, there had already been—a number of retired workers—what kind of insurance were they going to get? And the answer was, little or none, because the government—the federal government, which owned the plant, had basically said, “Look, we're done with you, we have no obligation, even though many of you are sick because of what happened.” And some of the younger workers who hadn't retired were worried about being able to get jobs because of potential liabilities from other employers, all kinds of things like that. So I did a lot of interviews of workers on that, and I remember at one point, going out to the union hall and talking to three workers who had heavy exposures to beryllium, which is one disease that is clearly identified as having been caused by the working conditions at Rocky Flats. You know, radiation, it gets more complicated because there are other things we can talk about—But with beryllium it definitely happened because of their job. So these three workers were there, and I. K. Roberts, who's now deceased—two of the three are now dead—I.K. Roberts was one of the union officers who was the person behind a lot of their activities, and trying to get insurance, especially for beryllium, was there, and I would ask questions and one of the workers in particular kept looking to I.K., and saying, "Can I answer that? Can I talk about that?" And I could hear him say, "Yeah, the Cold War's over, this isn't secret, you're not giving away any design features."

And of course in the book, and in my interviews, I'm not interested in exposing any information that would help Saddam Hussein or anyone else make nuclear weapons. But most of the secrets aren't really that kind of secret. Most of the secrecy is to conceal political problems, and not to conceal real genuine national security information. So—But these people lived- the workers and the managers and certainly the DOE officials, they all lived within this secrecy kind of cocoon, and so suddenly now, it was being punctured, and they were having a hard time figuring out, what can I talk about? And some of them simply, particularly when it came to Department of Energy officials, they—secrecy had kept them from being accountable for their actions, so they didn't want to talk about it, and there was still this notion of secrecy.

But surprisingly, I think across the board, workers and managers alike, there was a lot of openness, and certainly much more openness than if I'd tried to do this book in the 1980's, when the Cold War was going. Then I would have gotten shut down pretty quickly. Also, another advantage of doing it when I did was—I mentioned earlier, Hazel O'Leary, who was Secretary of Energy, released a lot of information.

23:01 (Do you know anything about that—you discuss that some in your book, do you know was it in particular her as the person?)

She believed—well, it was her as a person, but also she had brought into the government a number of people who had been on the outside, looking in, and particularly some people from the National Resources Defense Council in Washington. One of her attorneys, one of her staff attorneys, top attorney Dan Reicher had been with the NRDC for a long time, and he had actually sued the DOE for their information, and sued them because of their behavior. So now suddenly the outsiders were now inside. So there was a lot of pressure suddenly to reveal information that had no national security consequences, that had consequences for public health and environmental concerns. So I think it was a combination of O'Leary herself wanting a more open government, and the staff people in the Administration. And the chemistry was just right to let out a lot of information that informed us. And one of my concerns—

24:28 (Do you think that is shifting?)

That is shifting, there's no question that that's shifting right now, because—You look at the U.S. Senate, just a couple of months ago, they defeated the Comprehensive Test Ban Treaty. What a short-sighted decision on their part. This whole case of Wen Ho Lee at Los Alamos, the alleged spy case. What he did or what he didn't do, whatever happened, the case has been blown way out of proportion in terms of this notion that China couldn't have done—couldn't have made warheads, like the W-88—which interestingly enough, I haven't seen this actually written anywhere, the W-88 is the last warhead that was made at Rocky Flats, and that's the warhead that the Chinese apparently got hold of. Now Wen Ho Li at Los Alamos hasn't been charged with giving information to the Chinese, but that's been the insinuation, all along.

It's reminiscent of the late '40s, when there were many people in the American government who said, Oh, the Russians can't possibly make atomic weapons for another decade or two, because it's just not possible. And the Russians—the Soviet Union tested its first nuclear weapon in August, 1949. The advantage—there were spies, there were nuclear spies, and all of the best, most authoritative history about that, David Holloway from Stanford wrote a book, *Stalin and the Bomb*, and his estimate, and this is confirmed by others, is that the Russians probably gained two years by the spying. But two years is a lot less than a decade or two. So, yes, spying had some impact, but at the same time—

Once the bomb was exploded, once Hiroshima and Nagasaki occurred in 1945, everyone around the world knew it was possible. So then it was just a question of figuring out the technology, and if you have an industrial country—One of the things that physicists have said to me, and it's kind of a frightening prospect, is that once you have fissile material, either plutonium 239 or uranium 235, once you have that material, it's actually pretty easy to make a bomb. And I think that's something that we have to keep in mind, the public, and citizens need to keep in mind, as we read about secrecy, and how the Chinese wouldn't have been able to develop this weapon system or that system without the spies, with the notion still being that there's some big secret that's going to be kept, and all we have to do is keep it quiet and that will take care of the problem of nuclear weapons.

Well, the fact is that there are now at least seven known nuclear weapons powers, in addition to the United States. Because we have—Israel is the one unacknowledged nuclear weapons state, and now we have India and Pakistan, and here we have India and Pakistan going at each other, they've fought about three wars in the last 50 years, and here they are armed with nuclear weapons. Think of the impact of the Chernobyl accident on the world. What's going to be the impact of a regional nuclear war? And so, yes we can be very happy that the possibility of a global nuclear war has diminished considerably, now that the Soviet Union has disappeared. But that hasn't—We're not out of the woods yet, with nuclear weapons.

28:22 (Is it your feeling as a journalist that journalism and the media have given enough attention to this whole issue, or not? It did seem like there was more interest after the Comprehensive Test Ban was not ratified. But again it's kind of faded—)

Yeah. I think that we aren't paying enough attention to it. I think—that part of the problem is the media.

(Do you know why the media is so uninterested in general?)

Yeah, that's a whole other subject. I think the media in this country are way too oriented toward entertainment. We have this new word even, "infotainment," where it's supposed to be this merger of information and entertainment, so it's "infotainment." We have lots of celebrity journalism and news that really isn't news, where subjects like nuclear weapons proliferation, they're far too serious, we have to—they're boring subjects, we need to do more exciting coverage. So, yeah, I think the media are doing a great disservice to the public.

But I think the public has to say, hey, we want more from our media than we're getting, and that's a real dilemma, because the problem you get is, well, how does the public know what we're not getting if we're not getting it? So this continual effort by many of us to try to improve the standards in journalism. At a school like this, where you have students who are graduating and will take jobs, our goal is to really educate students and send them out with a good knowledge of what excellent journalism is and how to do it, and hope that by having such students working in the media, newspapers and broadcast media, that they will effect some change and we'll improve. But the—with so many—the media are now run by accountants, by and large. I saw in my own experience, the Chicago Tribune, the publisher, at one point in the early '80s, an accountant was brought in to be the publisher of the paper. And he was a bean-counter, he didn't care about good journalism, he cared about how much it was costing, and he cared about the profit margins. And so there's this whole profit orientation that I think has gotten way carried away. Newspapers and broadcast stations certainly have to be profitable in order to stay alive, but they don't have to make humungous profits in order to do it. And I think that's the difference. Not enough resources are going into producing good journalism. So—you obviously struck a chord by that question!

31:59 (Speaking of profits and the money issue, it seemed to me that your book is really structured, not only in the title, *Making a Real Killing*, which is of course a play on making a profit, but it is structured to point out how important the economic motive has been. I'm sure that was deliberate on your part.)

Oh, absolutely. The ambivalence—the real killing, on the one hand, is that Rocky Flats made most of the 70,000 nuclear weapons that were manufactured for the U.S. arsenal. If there had been a nuclear war, that would have been the real killing, we would have wiped out the earth. So the community participated in this bomb-making work. Yet, because that didn't happen, because there wasn't a—In 1969 when the fire was almost burning through the ceiling of the production building out there with 7600 pounds of plutonium in it—Because it didn't burn and there wasn't a catastrophic fire, then there was this sort of attitude of, well, it didn't happen, it was OK. A year after that '69 fire, the top Atomic Energy Commission official in charge of nuclear weapons production said, "If that fire had been a little bit bigger, it would have burned the building down and contaminated hundreds of square miles," and we wouldn't be sitting here today in Boulder, if that fire had gone completely out of control. But yet, when the AEC investigators went in and were talking to the Dow Chemical people about the fire, and said, "Don't you realize what a catastrophe you almost had," the response was, "Hey, it didn't happen. Don't worry about it."

So therefore even though it was a very high risk operation, because that risk didn't result in a disaster, the risk has sort of been forgotten. As a consequence, the “making a killing” was really through the jobs and the contracts and the tens of billions of dollars went into the Denver community by virtue of that plant, and when you look through the history and you see the justification for Rocky Flats continuing, it was always weighed in terms of the economic terms, so even someone with the moral stature of a David Skaggs, whom I have a great amount of respect for, as a politician he had to weigh both the support he got from the union members at that plant, the workers, as well as the economic consequences of Rocky Flats, when he was weighing that against the environmentalists and the anti-nuclear constituents that he was trying to please, he was in something of a dilemma, it took him a long time to oppose Rocky Flats and led to a confrontation that I describe in the book, between him and Jim Kelly, the President of the union.

35:38 So, it's—I think in many ways the story of Rocky Flats is a real story about short-term thinking. Thinking about today and not worrying about tomorrow. So you think about, OK, lots of jobs—At one time, after production halted, the peak employment happened out there after the bomb production stopped, which is another great irony. But you had the jobs, you had the contracts, and during the production days, you had the top priority making weapons, so the idea that there can be environmental or health consequences, that was shoved aside, don't worry about that very much, and the idea that the bombs being made at Rocky Flats could destroy the world, there weren't very many people who thought about that. The activists started it, but I think that that's something that, as a society we really need to deal with, think about. In a democratic society, why was it that we the public never really had a debate about nuclear weapons until the late '70's or early '80's, with the Nuclear Freeze Campaign. Now that was the first time that people started saying, “well, wait now, we don't want nuclear weapons.” You had people declaring nuclear-weapons-free zones, and all kinds of things, which were on the one hand, you might say, well, that's silly, how can you do that, just declare yourself outside of the boundary. But it was a symbolic—these are symbolic acts to say, nuclear weapons are dangerous and they can destroy the world. And let's pay attention to that.

So it's the 1980s, long after the weapons arsenals were built up. So I think that the media didn't play—particularly for the first twenty years of Rocky Flats' existence—didn't play the role that they're supposed to play in society, of being a watch-dog; it didn't inform the public, and the journalists simply bought the argument that, well, this is national security, we can't know about that; and didn't ask questions. And one of the things I do in the book is, compare—juxtapose—the media coverage during, particularly in this period from 1952 to 1969, where you didn't have very much media coverage—But I juxtapose that with the documentation, now de-classified documentation about what was actually going on inside the plant. And they couldn't be further apart. The media were just parroting whatever the government decided the public should know, rather than becoming aggressive. And that aggressiveness and attention to what was occurring inside the plant did finally come about in the 1980s, a little bit in the '70s. After the '69 fire, that really was the big break point in the history of Rocky Flats, before and after '69.

39:10 (Do you think the activists—the protests—played a large role in bringing public attention to it, or do you see it as a mixture of things?)

Well, I think that the role of the activists—After the 1969 fire, the first major public role was played by independent scientists who went out—Ed Martell and his colleagues—Ed Martell, who is now deceased was up at the National Center for Atmospheric Research, he did soil samples.

(Were you able to talk with him?)

Yes, I did interview him, I would have liked to have talked to him in a second round, but I did talk to him at some length before his death. Once the scientists got involved, and said, “Hey, there's plutonium off-site,” and were raising those issues, that gave activists something to really grab hold of, it was now tangible. It's very hard for all of us to think in sort of theoretical terms, particularly when you're dealing with something like national security and the nuclear arms race. The government says, well, we have to have nuclear weapons in order to save our nation and freedom and so on and so forth. Most people tend to buy that, you're not going to confront that and not spend a whole lot of time, the activists being exceptions in that, the people who were really concerned and understand the potential consequences. So the activists were able to use material from Martell, and sometimes then they went beyond it. That's one of the things about activists—they're different from scientists, they will make an argument that goes beyond the science, and that happened with Rocky Flats. So that in some eyes discredited some of the work.

But I think the scientists and the activists, by those activities, really focused journalists. It was a story, it was news, there were things happening there, that's really what journalists need in order to do their work. Something has to be occurring, or you have to do an investigation, and then expose it, and that's another approach to take. But I do think that activists played an important role, both environmental activists and peace activists, and those groups, again—In the book there were disagreements about what should happen. The environmental activists tended to want to focus on the locality, the anti-nuclear; the peace activists wanted to make it part of a bigger issue of militarization. And so—that often led to strains, if not breaks, between some of the groups.

But exactly the role of activists in shutting down Rocky Flats, I've been asked that, what do you think—and I know that wasn't quite your question, but let me just respond a bit to that. I think that activists—The reason that Rocky Flats was shut down was that the Cold War ended, there's no question about that. If it hadn't ended, if the Soviet Union hadn't disintegrated, if those things hadn't happened, I think there's probably a good chance that Rocky Flats would still be producing nuclear bombs today. The Cold War changed everything. But I think that activists, both at Rocky Flats and other parts of the country, played a really important role in changing the atmosphere and changing the mood. You had the Nuclear Weapons Freeze Campaign that we talked about earlier, there were a lot of activities that were going on in this country that I think made it possible for Gorbachov to make—to take some risks toward peace by sort of thinking, OK, this—I can justify my actions because there—the public doesn't support the war-mongering, these statements about the "Evil Empire," very extreme statements, in the rhetoric of the Reagan administration. So I think that activists played an important role there and also drew in more people, made the general public more aware of what was going on, both by their own publications and activities as well as by the journalism, making it a story that journalists could cover and wanted to cover.

44:14 (One thing that you've alluded to that I wanted to pick up on, the workers themselves, many that I've talked to, it's almost as though they didn't have—they didn't retain in their minds

the enormity of what they were working on in terms of the destructive capacity, even though of course they know it intellectually. I wonder if you had any thoughts about that. I notice for example many of them were really very sad when production stopped, and not just the possible loss of their jobs, but the loss of their purpose.)

Right. Right. That's a very good question. I found it interesting in talking to Jim Kelly in particular, who started working at the plant in 1956, his brother had worked at the plant, and he became one of the top union leaders with the United Steelworkers at the plant, and was the President and was engaged and he went to work for the International—so he has a long history at Rocky Flats. And several—I interviewed him several times over the years, and the last time I interviewed him, I got into that question, by that time we had a good rapport going. That's a pretty challenging sort of question, what did you think about making weapons that could destroy the world? I found his answers quite fascinating. On the one hand, he's talking about in the '60s, in particular. He said that the workers, and people he was close to, did have a sense of the destructive power of what they were doing, that they talked especially to some of the old-timers who had been in the Navy and had seen the nuclear weapons test in the Pacific, or had been in the Army and had been involved in some of the tests in Nevada, where they described the bombs. And he said, it was just terrifying, he would go home and not talk to his family about it. He wanted to repress that, the notion of the enormity of what was going on.

And he said, two other comments about that, he said, "Well, you know, for one thing, we reconciled ourselves with the notion that when the device—as they call the nuclear bomb—when the device left the plant, it couldn't explode." And that's true, because the detonators, the nuclear bombs from Rocky Flats were sent down to Amarillo, Texas, and that's where the conventional explosives would be packed around the bomb, and those conventional explosives, the TNT, is what triggered the explosion, the implosion, of the nuclear, the fission bomb that then triggered the hydrogen bomb. So you have actually three different sequences of explosion. So that was technically correct, but it would be like somebody working in a dynamite factory, and saying, "I don't really make explosives because we don't make the blasting caps here." It was a way to deny what you were doing.

48:12 The second response to that was, also from Kelly, he said, "I knew that if a nuclear war happened, I wouldn't be the one to push the button." And then he kind of recalled how [when] John Kennedy was President, and he knew the Kennedy role in the Cuban missile crisis, that's the closest we ever came to global nuclear war, that we know of, and that was very close, I mean it's just frightening when you think about it. I think everybody should understand how close we were to destroying the world in 1962. But he said, "And I just knew that Kennedy—if Kennedy decided he had to—he would do it on moral principles, I just think the world of John Kennedy."

So I think there was a lot of denial going on about that. At the same time, there was the other piece. You mentioned this, and that was, the workers out there thought of themselves as being soldiers of the Cold War. They had been told by the government, just as we were all told, that nuclear weapons were preserving the peace, that nuclear weapons had to be there, and if we didn't have nuclear weapons, we would have had a third world war. And that's still an argument today about it, you look back at the Cold War. So there was this sense, and actually Jack Weaver, in the book, describes coming to work when the Encirclement was occurring in 1983, and thinking as he drove past the demonstrators, going to the plant, about how, here you are out

here demonstrating, the only reason you can demonstrate is that I am preserving the peace and working here making nuclear weapons that are keeping you free. And they really did think that. So it's a combination of the two.

(And they still do think that.)

And you as a psychologist can work that out much better than I. I find it a really fascinating psychological—piece of it. And purpose—what gives us purpose in our lives, the notion that you are part of a secret club, the secrecy, you couldn't talk about it, you could only talk about it with other Rocky Flats workers, what was going on in there, it was a fraternity and a sorority, all wrapped up in one, mostly fraternity, because it was mostly male workers out there. And being part of the in-crowd, and knowing something that no one else knew and feeling that you were really doing something for your country is a strong impulse for any of us.

51:33 (Are there things we haven't touched on, you haven't touched on yet or I haven't asked you, that you think should be—We may want to talk later on, but for now—we've got about ten minutes or so.)

Well, I think that there are some lessons that we need to think about in terms of Rocky Flats. What can we learn from this experience, and what haven't we learned? A couple of them that come to mind right away, and we may have touched on part of it, but one is, I think to me, looking at the history of the plant, and you know there are thousands of other stories, I only touched a few of the stories, I tried to pick representative ones. There are lots of other people, and I know that there are people who were disappointed that their—that they aren't in the book. That's bound to happen, and I hope that they will write their own books, or somebody else will do something and their stories will get in there.

But I think one of the conclusions that you have to come to as you stand back and look at Rocky Flats, is that national security is far too important to leave in the hands of the nuclear weapons establishment, and to leave in the hands of the government and to say, "OK, the decisions are being made out there, and they give us our marching orders and we're going to march. They give us our orders and we're going to make weapons of mass destruction." You know, a democratic society isn't supposed to work that way, we're supposed to have dialogue and debate and part of the reason that we didn't have that is because national security was used to say, "OK, this is off limits, this is taboo, you can't talk about that because it's secret and the bad guys are going to—if we talk about it, the bad guys are going to gain information that will damage our security, so put it aside."

We're all, I think, inclined to pay attention to the moment, what's happening now. I remember back from a psychology course, Maslow's hierarchy of needs, and we have different needs in our lives, and when we get down to the basics of food, security, job, and a lot of us in our lives are paying a considerable amount of attention to that and don't have time to think about these bigger subjects that we have no control over at all. We can't affect it anyway, is kind of the standard notion.

And add that to a society that is so oriented to commercialism, to consumption. When we think about technical subjects, there are people who can tell you about every brand of refrigerator and

every brand of stove or VCR or computer or whatever, who have a tremendous amount of knowledge, who'll say, I can't think about these bigger issues because they're far too complex. Well, I think it's that attention has been focused in on buy, buy, buy, purchase, do this, do that. And again, we're back to short-term thinking. So I think that we need to really look at ourselves and look at our society. Democracy can't work if we exclude national security issues from the discourse. So that's a long answer to that one.

55:52 Part of that, too, I think, comes with the recognition that we think of—in a democratic society you have to have an informed public, and an informed public, in order to be informed, you have to have good journalism, there's no—you have to have the information. And I think that when you look at the story of Rocky Flats and many other things that happened during the Cold War and are still happening today, the media often didn't perform the watchdog role they're supposed to play, so let's not continue kidding ourselves about that. If we're going to say, OK, the media can tell us about corruption in the mayor's office or in the governor's office, or report about certain education problems, but it can't talk about national security, then let's admit that, let's say, “OK, we're not getting information there and we've agreed to go along with that.” But I don't think that debate has ever taken place, _____ the nuclear weapons debate, so I think we both have to recognize the limitations, and say, OK, let's—if we're going to talk about democracy and a free press and all, let's make sure we understand what that really means. The corollary to that is, I think, journalism has to do a much better job. Obviously I'm coming from my own field and area of interest. But that's, I think, crucial.

Finally, with respect to the question of activism, I think that activists can make a difference, they did make a difference and I believe this is one of those words that's probably gotten overused and therefore abused, but—empowerment. I think that citizens have to know, it's got to start with kids in schools, through the school system, can make a positive difference, you can effect change, but in order to effect change, you have to also be knowledgeable about the world and about your community, and so it's all wrapped together. But I think it's really important to have a positive message that comes across, that's you're not powerless, you're not simply driftwood on a lake, that's sort of washed around where the wind is blowing, you can make a difference. And I suppose—

58:46 (Thank you very much! You've provided wonderful background to the book.)

Thank you.

58:58 [End of Tape B. End of interview.]